

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (original) An image forming device network system, a parent device including a first image scanning unit for scanning an image to generate image data, a first memory unit connected to the first image scanning unit for storing the image data that has been scanned in by the image scanning unit, a first image forming unit connected to the first memory unit for reading the image data and forming an image on an image-transferring medium and a first control unit connected to the first image scanning unit, the first memory unit and the first image forming unit for controlling the first image scanning unit, the first memory unit and the image forming unit, the first control unit controlling transfer of the image data via the network, at least one child device connected to the parent device through a network including a second memory unit operationally connected to the first memory unit for storing the image data that has been transferred from the first memory unit via the network, a second image forming unit connected to the second memory unit for reading the transferred image data and forming an image on an image-transferring medium, a second control unit connected to the second memory unit and the second image forming unit for controlling the second memory unit and the second image forming unit, the image forming device network system comprising:

a collaboration unit connected to the parent device and the child device for activating a collaboration mode for a collaboration print job between the child device and the parent device;

a receiving unit located at the child device and connected to the parent device for receiving the image data that is transferred from the parent device to the child device; and

an execution unit connected to said receiving unit for initiating the second image forming unit for the collaboration print job only after an entire portion of a predetermined size of the transferred image data for the collaboration print job is stored in the second memory unit.

2. (original) The image forming device network system according to claim 1 further comprising a first remaining memory detection unit connected to the first memory unit for detecting a

remaining amount of memory in the first memory unit.

3. (original) The image forming device network system according to claim 1 further comprising a second remaining memory detection unit connected to the second memory unit for detecting a remaining amount of memory in the second memory unit.

4. (original) The image forming device network system according to claim 3 wherein said second remaining memory detecting unit detects a predetermined remaining memory level in the second memory unit to generate a memory full signal, said second remaining memory detecting unit further comprising a reporting sub-unit for reporting the memory full signal to the parent device.

5. (original) The image forming device network system according to claim 4 further comprising a transfer interrupt unit located at the parent device and connected to said second remaining memory detecting unit and said collaboration unit for interrupting the transfer of the image data to the child device via the network upon receiving the memory full signal.

6. (original) The image forming device network system according to claim 5 wherein said collaboration unit cancels the collaboration print job after the image transfer has been interrupted from the parent device to the child device, said collaboration unit removing the transferred image data from the second memory unit.

7. (original) The image forming device network system according to claim 6 wherein said collaboration unit deactivates the collaboration mode.

8. (original) The image forming device network system according to claim 7 further comprising a reservation unit located at the parent device for reserving next ones of the collaboration print job while the collaboration print job is being executed.

9. (original) The image forming device network system according to claim 8 wherein said reservation unit informs said collaboration unit of no reservation job to preserve the collaboration mode if no job has been reserved when said second remaining memory detecting unit detects the predetermined remaining memory level in the second memory unit.

10. (original) The image forming device network system according to claim 8 wherein said reservation unit informs said collaboration unit of a reservation job to deactivate the collaboration mode if a job has been reserved when said second remaining memory detecting unit detects the predetermined remaining memory level in the second memory unit.

11. (original) The image forming device network system according to claim 8 wherein said collaboration unit onsets the image data transfer from the parent device to the child device when the corresponding one of the reserved jobs becomes the activated collaboration print job.

12. (original) The image forming device network system according to claim 11 wherein said collaboration unit prevents the image data transfer if the parent device completes the activated collaboration print job before the child device has a chance to perform the activated collaboration print job.

13. (original) The image forming device network system according to claim 11 wherein said collaboration unit interrupts the image data transfer if the parent device initiates a last portion of the activated collaboration print job while the image data is being transferred from the parent device to the child devices, said collaboration unit removing the transferred image data from the second memory unit.

14. (original) The image forming device network system according to claim 1 wherein said collaboration unit removes the image data from the first memory unit when said collaboration unit determines that the collaboration print job between the child device and the parent device is completed.

15. (original) The image forming device network system according to claim 1 further comprising a selection unit connected to said collaboration unit for a user to select the collaboration mode or a single operation mode for a print job.

16. (original) The image forming device network system according to claim 3 further comprising a memory comparison unit connected to said second remaining memory detection unit for comparing the remaining memory amount in the second memory unit and a size of the image data to generate a comparison result.

17. (original) The image forming device network system according to claim 16 wherein said memory comparison unit further comprises a transfer determination sub-unit for determining an image data transfer of the image data based upon the comparison result.

18. (original) The image forming device network system according to claim 17 wherein said transfer determination sub-unit interrupts the image data transfer if the remaining memory amount in the second memory unit is less than the image data size.

19. (original) The image forming device network system according to claim 16 further comprising a display unit connected to said memory comparison unit for displaying information on the child device having the remaining memory amount in the second memory unit that is larger than the image data size.

20. (original) The image forming device network system according to claim 1 further comprising a distribution unit connected to said collaboration unit for distributing the collaboration print job to a selected one of the child devices based upon availability and a current load amount.

21. (original) The image forming device network system according to claim 20 further comprising a remaining resource monitoring unit connected to said distribution unit for monitoring a remaining resource at the parent device and each of the child devices.
22. (original) The image forming device network system according to claim 21 wherein the remaining resource includes paper and toner.
23. (original) The image forming device network system according to claim 21 wherein said distribution unit determines whether or not the parent device alone prints an entire portion of the collaboration print job based upon the remaining resource at the parent device.
24. (original) The image forming device network system according to claim 23 wherein said distribution unit assigns a part of the collaboration print job to a selected one of the child devices based upon the remaining resource at the child devices if the remaining resource at the parent device is not sufficient for the collaboration print job.
25. (original) The image forming device network system according to claim 24 further comprising a display unit located at the parent device connected to said distribution unit for displaying information on the selected child device.
26. (original) The image forming device network system according to claim 24 further comprising a display unit located at the child device connected to said distribution unit for displaying information on the collaboration job.
27. (original) The image forming device network system according to claim 1 further comprising an image consolidation unit connected to said collaboration unit for consolidating the image data in a predetermined manner to generate consolidated image data before transferring from the parent device to the child device.

28. (original) The image forming device network system according to claim 27 further comprising a determination unit for determining whether a print mode is in a stack mode or a sort mode prior to generating the consolidated image data.

29. (original) The image forming device network system according to claim 28 wherein said image consolidation unit at the parent device generates all of the consolidated image data and transfers the consolidated image data from a first portion in case of the sort mode.

30. (original) The image forming device network system according to claim 28 wherein said image consolidation unit at the parent device generates all of the consolidated image data and transfers the consolidated image data from a last portion in case of the stack mode.

31. (original) The image forming device network system according to claim 28 wherein the transferred image at the child device is removed as soon as the collaboration print job at the child device is complete.

32. (original) The image forming device network system according to claim 1 wherein the parent device transfers the image data from a last portion and the child device prints the image data from the last portion in a stack mode during the collaboration mode.

33. (original) The image forming device network system according to claim 32 wherein the parent device terminates the transfer of the image data if a corresponding image is already printed.

34. (original) The image forming device network system according to claim 33 wherein if the parent device completes the transfer of the image data to the child device, the child device normally completes printing of the transferred image and the parent device also completes printing of the image data, the image data is removed from the first and second memory units.

35. (original) An image forming device network system, comprising:

a parent device further comprising:

a first image scanning unit for scanning an image to generate image data;

a first memory unit connected to said first image scanning unit for storing the image data that has been scanned in by said image scanning unit;

a first image forming unit connected to said first memory unit for reading the image data and forming an image on an image-transferring medium; and

a first control unit connected to said first image scanning unit, said first memory unit and said first image forming unit for controlling said first image scanning unit, said first memory unit and said image forming unit, said first control unit controlling transfer of the image data via the network; and

at least one child device connected to said parent device through a network further comprising:

a second memory unit operationally connected to said first memory unit for storing the image data that has been transferred from said first memory unit via the network;

a second image forming unit connected to said second memory unit for reading the transferred image data and forming an image on an image-transferring medium; and

a second control unit connected to said second memory unit and said second image forming unit for controlling said second memory unit and said second image forming unit, wherein said first control unit and said second control unit performing a collaboration print job, said first control unit and said second control unit initiating a collaboration mode for the collaboration print job only after an entire portion of a predetermined size of the transferred image data for the collaboration print job is stored in said second memory unit.

36. (original) The image forming device network system according to claim 35 further comprising a first remaining memory detection unit connected to said first memory unit for detecting a remaining amount of memory in said first memory unit.

37. (original) The image forming device network system according to claim 35 further comprising a second remaining memory detection unit connected to said second memory unit for detecting a remaining amount of memory in said second memory unit.

38. (original) The image forming device network system according to claim 37 wherein said second remaining memory detecting unit detects a predetermined remaining memory level in said second memory unit to generate a memory full signal, said second remaining memory detecting unit further comprises a reporting sub-unit for reporting the memory full signal to said parent device.

39. (original) The image forming device network system according to claim 38 wherein said parent device stops the transfer of the image data to said child device via the network upon receiving the memory full signal.

40. (original) The image forming device network system according to claim 39 wherein said first control unit and said second control unit cancel the collaboration print job after the image transfer has been interrupted from the parent device to the child device, said first control unit and said second control unit removing the transferred image data from the second memory unit.

41. (original) The image forming device network system according to claim 40 wherein said second control unit deactivates the collaboration mode.

42. (original) The image forming device network system according to claim 41 further comprising a reservation unit located at the parent device for reserving next ones of the collaboration print job while the collaboration print job is being executed.

43. (original) The image forming device network system according to claim 42 wherein said reservation unit informs said first control unit and said second control unit of no reservation job to preserve the collaboration mode if no job has been reserved when said second remaining

memory detecting unit detects a predetermined remaining memory level in the second memory unit.

44. (original) The image forming device network system according to claim 43 wherein said reservation unit informs said first control unit and said second control unit of no reservation job to deactivate the collaboration mode if a job has been reserved when said second remaining memory detecting unit detects a predetermined remaining memory level in the second memory unit.

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97. (original) The image forming device network system according to claim 1 wherein said collaboration unit further comprises an allocation unit for allocating an initial share of the collaboration print job at the child device and the parent device, wherein said collaboration unit monitors printing of the collaboration print job at the child device and the parent device to generate a print completion signal, said allocating unit further reallocating a remaining share of the collaboration print job at the child device and the parent device based upon the print completion signal.

98. (original) The image forming device network system according to claim 35 wherein said first control unit further comprises an allocation unit for allocating an initial share of the collaboration print job at the child device and the parent device, wherein said first control unit and said second control unit respectively monitor printing of the collaboration print job at the parent device and the child device to generate a print completion signal, said allocation unit further reallocating a remaining share of the collaboration print job at the child device and the parent device based upon the print completion signal.

99. (cancel)

100. (new) An image forming system having a collaborated system among a plurality of electrically connected image forming devices each including a scanning means for scanning originals into image data, an image processing means for processing the scanned image data and a printing means for printing the processed image data, the image forming system comprising:

a means for transferring the image data from one of the image forming devices as a parent device to another one of the image forming devices as a child device and for processing in parallel between the parent device and the child device as a collaboration job to print the image data, wherein the parent device starts to transfer the image data to the child device when the collaboration job is its turn to be printed for a print job reserved at the child device, in case the parent device has started to print a final portion before the print job at the child device in a predetermined sort mode, the parent device fails to transfer the image data to the child device.

101. (new) An image forming system having a collaborated system among a plurality of electrically connected image forming devices each including a scanning means for scanning originals into image data, an image processing means for processing the scanned image data and a printing means for printing the processed image data, the image forming system comprising:

a means for transferring the image data from one of the image forming devices as a parent device to another one of the image forming devices as a child device and for processing in parallel between the parent device and the child device as a collaboration job to print the image data, wherein the parent device starts to transfer the image data to the child device when the collaboration job is its turn to be printed for a print job reserved at the child device, in case the parent device has started to print a final portion while the parent device is transferring the image data to the child device in a predetermined sort mode, the parent device stops to transfer the image data to the child device and releases memory at the child device.

102. (new) An image forming device including a scanning means for scanning originals into image data, an image processing means for processing the scanned image data and a printing means for printing the processed image data, the image forming device comprising:

a means for transferring the image data from the image forming device to one of other image forming devices and for processing in parallel between the image forming device and the one of other image forming devices as a collaboration job to print the image data, wherein the image forming device starts to transfer the image data to the one of other image forming devices when the collaboration job is its turn to be printed for a print job reserved at the one of other image forming devices, in case the image forming device has started to print a final portion before the print job at the one of other image forming devices in a predetermined sort mode, the image forming device fails to transfer the image data to the one of other image forming devices.

103. (new) An image forming device including a scanning means for scanning originals into image data, an image processing means for processing the scanned image data and a printing means for printing the processed image data, the image forming device comprising:

a means for transferring the image data from the image forming device to one of other image forming devices and for processing in parallel between the image forming device and the one of other image forming devices as a collaboration job to print the image data, wherein the image forming device starts to transfer the image data to the one of other image forming devices when the collaboration job is its turn to be printed for a print job reserved at the one of other image forming devices, in case the image forming device has started to print a final portion while the image forming device is transferring the image data to the one of other image forming devices in a predetermined sort mode, the image forming device stops to transfer the image data to the one of other image forming devices and releases memory at the one of other image forming devices.

104. (new) An image forming method by a collaborated system among a plurality of electrically connected image forming devices each including a scanning means for scanning originals into image data, an image processing means for processing the scanned image data and a printing means for printing the processed image data, the image forming method comprising the steps of:

processing in parallel between one of the image forming devices as a parent device and another one of the image forming devices as a child device as a collaboration job to print the image data; and

transferring the image data from the parent device to the child device, wherein the parent device starts to transfer the image data to the child device when the collaboration job is its turn to be printed for a print job reserved at the child device, in case the parent device has started to print a final portion before the print job at the child device in a predetermined sort mode, the parent device fails to transfer the image data to the child device.

105. (new) An image forming method by a collaborated system among a plurality of electrically connected image forming devices each including a scanning means for scanning originals into image data, an image processing means for processing the scanned image data and a printing means for printing the processed image data, the image forming method comprising the steps of:

processing in parallel between one of the image forming devices as a parent device and another one of the image forming devices as a child device as a collaboration job to print the image data; and

transferring the image data from the parent device to the child device, wherein the parent device starts to transfer the image data to the child device when the collaboration job is its turn to be printed for a print job reserved at the child device, in case the parent device has started to print a final portion while the parent device transfers the image data to the child device in a predetermined sort mode, the parent device stops to transfer the image data to the child device and releases memory at the child device.